

June 2006



Volume 11 No. 6

Report to *STAKEHOLDERS*

<http://www.edwards.af.mil/penvmng/index.html>

Earth Day activities “WOW” Edwards AFB community

Arbor Day tree planting, student
tours a part of festivities

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Edwards Air Force
Base biologists
expand desert
tortoise knowledge
base through study.

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Meet David Schory,
the newest addition to
the Restoration
Advisory Board. He
represents the Main
Base Air Base Wing
at Edwards Air Force
Base.



CELEBRATE — Children from the Edwards Air Force Base (AFB) Child Development Center, above, touch a snake at the Natural Resources Management table. The children also helped plant a tree for Arbor Day. Environmental Management hosted this year's event in the parking lot of the Base Exchange. More than 500 people toured the tents. See page 6 for more on the festivities.

Q.

Does Edwards Air Force Base (AFB) do any type of composting?

A.

Edwards AFB has been composting green waste since 1996.

Green waste composting was started as a way of reducing the volume of waste entering the landfill, which obviously saves landfill space. Green waste generated by military family housing members and landscape maintenance contractors, is transported to the composting facility. At the composting facility, green waste is mixed with mulch, horse manure and composting enzymes. This material is then composted using the Ag-Bag process.

The Ag-Bag process consists of placing the mix into a 200-foot long plastic bag. When full, air is pumped through the bag for roughly eight weeks. This provides the perfect environment for the bacteria to break down the green waste. Following the air treatment, the bag is opened and the product is passed through a screener that separates the fine, rich compost from the larger wood mulch.

Before being approved for use, the processed product is tested by base bioenvironmental engineering staff. This step ensures that the composted material is free from any harmful contaminants such as metal concentrations and bacteria. The compost samples collected and tested by Edwards AFB are shared with county and state regulators, so users of composting material can be certain the product is environmentally safe.

When all these steps are complete, the end product is available to housing residents and landscape maintenance contractors for use. For more information contact the Edwards AFB Environmental Management office at (661) 277-1401.

RTS



If you have a question about the Edwards Air Force Base Environmental Management program, you may address it to Stakeholders Forum, Attn: Gary Hatch or Miriam Horning, 5 E. Popson Ave., Edwards AFB, CA 93524-8060, or send e-mail to:

95 ABW/PAE@edwards.af.mil

Next RAB Meeting

Aug. 17, 2006

5:30 p.m.

Location is To Be Determined

The public is invited.

Report to Stakeholders is a publication of the Edwards AFB Environmental Management Division. Its purpose is to inform and educate the public, base workers and residents about continuing Environmental Management efforts at Edwards AFB. It currently has a circulation of 6,000, including about 2,000 subscribers.

Contents of the *Report to Stakeholders* are not necessarily the official view of, or endorsed by, the U.S. government, the Department of Defense, or the Department of the Air Force.



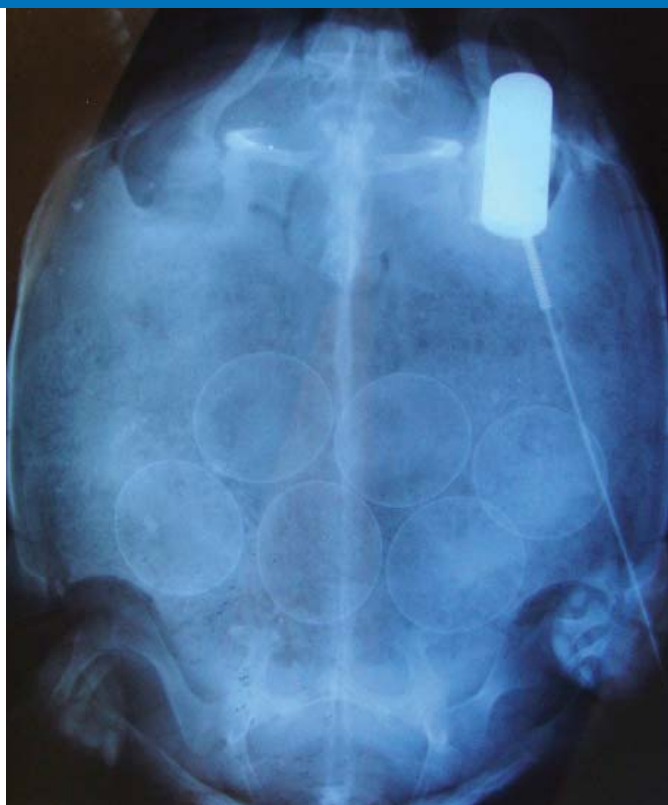
Commander 95th Air Base Wing..... Col. H. Brent Baker, Sr.
Base Civil Engineer..... James Judkins
Division Chief Environmental Management..... Robert Wood
Branch Chief Environmental Restoration..... Ai Duong
Branch Chief Environmental Conservation..... Gerald Callahan
Branch Chief Environmental Quality..... Robert Shirley

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Report to
STAKEHOLDERS





REPRODUCTIVE STUDY — An X-ray of a female desert tortoise, left, shows her clutch of eggs.



KEEPING TRACK — A biologist places a tracking device on a female desert tortoise, so that she can be easily located.

EM finding ways to increase desert tortoise populations through reproductive study

Edwards Air Force Base (AFB) biologists studied the likelihood and extent of genetic diversity among desert tortoise (*Gopherus agassizii*) hatchlings to reveal what they believe may be critical issues for wildlife management and the recovery of the desert tortoise.

With one of the greatest threats to desert tortoise populations being disease, the extent of genetic diversity among the tortoises can provide resistance for the disease's effect on the population at large.

"Without genetic variability the desert tortoise could be more prone to diseases or other environmental factors that might effect tortoise populations," JT3/CH2M HILL biologist Mark Bratton said. "Conservation of the desert tortoise involves a concentrated effort to maintain the maximum amount of historical and existing genetic diversity in the species."

The genetic diversity of the desert tortoise population is directly affected by the mating patterns of the species. For this reason, base biologists conducted the first phase of a reproductive study for the desert tortoise.

Throughout the study, base biologists studied the DNA from blood samples of 24 mothers, 25 potential fathers and 49 desert tortoise hatchlings at the Juvenile Hatchery at Edwards' Tortoise Study Site (JHETSS). The DNA allowed the biologists to assign fathers and mothers to the infant tortoises and identify the amount of fathers contributing to a single clutch of desert tortoises.

When mating, each desert tortoise can bring one of two genes to a specific chromosome site. These genes are called alleles and it is the combination of different alleles given by each parent that identifies the individual hatchling. The greater number of combinations allows for more genetic diversity among the hatchlings.

Base biologists found that each of the female desert tortoises had more than one mate expressed genetically in the hatchlings for the entire study. This means that at the very least, the female mated with a given amount of male tortoises. However, there could have been other mates during the reproductive season who did not contribute to the clutch.

Likewise, it is possible for each hatchling within a clutch of desert tor-

See Study, page 7



MAIN BASE AIR BASE WING RAB REPRESENTATIVE — *David Schory joins the Restoration Advisory Board (RAB) bursting with fresh ideas. He is eager to make a difference in the environment and in the lives of the community members that he represents.*

GET MOVING

RAB member strives to get public involved

The newest member of the Restoration Advisory Board (RAB), David Schory, is bursting with fresh ideas and is eager to make a difference in the environment as well as in the lives of the community members he represents, which is the Main Base Air Base Wing.

This contract specialist, professor, active father ... you name it, is passionate about making the public aware of the environmental

restoration efforts at Edwards Air Force Base (AFB).

Schory comes with many ideas about how to motivate and involve the community in the cleanup at Edwards. He said, "It is important to get the public involved, because getting them involved is half the battle." At the forefront of Schory's plans for his tenure, is investing effort into bringing community problems, situations, and victories to the attention of individuals that are affected by them the most.

Day after day of dealing with traffic while dropping his son off at Lancaster High School, prompted Schory to file a traffic complaint with the school. The school informed him that he was the first to mention the problem, but that they would take action to relieve the traffic situation. It was then that Schory realized the power of feedback and the need to get involved in his community.

Prior to his traffic complaint, Schory was no stranger to service and involvement, but he had not realized that so many people remain silent and uninvolved in changing their environment. This prompted him to focus on encouraging public activity.

Schory is a former Boy Scout and earned the rank of Eagle, Scouting's highest award for a boy. He comes from a long line of naval seamen but joined the Army. When asked about his decision to join the Army he jokes, "I get sea sick, so I joined the Army."

During his service of over 12 years, Schory learned about rockets in Vandenberg, Germany. After that he learned about aircraft. This brought him to Edwards AFB.

He works as a contract specialist with the 95th Air Base Wing Contract Support Squadron, which is working on the construction contracting flight. Schory administers the Refuse/Recycling/Greenwaste/Landfill contract, the Wastewater Treatment Plant contract, and Oil/Water Separator contracts. During which, he worked closely with the Environmental Management Division that supports the Environmental Restoration Program (ERP) and RAB.

He volunteers with the Boy Scouts of America, is a distinguished Toastmaster for Toastmasters International, and works with the Lancaster High School's Parent Teacher Association (PTA) and Renaissance program. Each of Schory's outreach programs have two things in common, the raising of leaders from within a community and the stressed importance of community involvement for the betterment of the community.

"It is important that the public feel a sense of ownership for their community; enough so, that they become active in the cleanup," he said.

Schory is an adjunct professor of human resources at Webster University and has no shortage of degrees from which to pull



KEEPIN' IT REAL — Schory is an active participant of the RAB. His goals are to educate and train the public on how to restore and maintain a healthy environment.

experience. He received a bachelor's degree in communications and a teaching degree in public speaking. He also received two master's degrees, one in counseling guidance, the other in human resources.

The professor's experience has impacted both his outlook on life and the extent of involvement that he maintains in reform programs.

Schory resides in Lancaster with his wife. They have three children.

RTS

"It is important that the public feel a sense of ownership for their community; enough so, that they become active in the cleanup."

David Schory
Restoration Advisory Board
Air Base Wing Representative



CURIOUS — A couple of children who attended the Earth Day event at the Base Exchange parking lot show their curiosity with one of the recycling bales.

EM event in April finds nice weather, good turnout

This year's Environmental Management (EM) Earth Day event found itself with nice weather and a swarm of people interested in what Earth Day and EM are all about.

The annual event moved to the Edwards Air Force Base (AFB) Exchange parking lot. Three tents were set up with various displays from the Conservation, Environmental Quality and Restoration Branches, which shared information about base recycling, cultural resources, natural resources, cleanup and other efforts to protect the environment and the health of people living here.

Base Environmental Analytical Laboratory chemists were on hand making liquid nitrogen ice cream and conducting chemistry demonstrations, while Geographic Information System specialists were available to talk about their role within EM and the technology they use. Col. Drew Jeter, the 95th Air Base Wing Commander, planted a ceremonial tree with children from the base Child Development Center.

"Although EM actually touches most operations on base, I'm sure some wonder what we do. The Earth Day event provides our staff with

the opportunity to share information about our efforts and get to know the people that we serve," said Robert Wood, EM Division chief.

Earth Day craft entries from surrounding community schools were also displayed for viewing.

The overall winner of the craft contest, Westside Union School District's Valley View Elementary fifth-grader Kenneth Moody for his excellent use of recycled materials to make a piggy bank, received a plaque and an opportunity to come onto Edwards AFB along with his class for the festivities and a pizza party at the EM building.

Second and third place for their category two division also came from the same class. They were Ryan Grief for his recycled materials x-plane and Zachary Elefante for his recycled materials white flyer. The overall second place entry winner was 7-year-old Melanie Maldonado from Sierra Elementary School for her recycled photoframe centerpiece.

"The Earth Day event was amazing," said Rebecca Blackburn, Moody's fifth-grade teacher at Valley View. "Each of my students had a notebook with different facts they discovered while out there. It was more than just a day out. I wanted them to look at all the different aspects of EM. The animals, the ecology ... they came back to the classroom and shared what they learned and we had a lesson on it."

The impact that the Earth Day event EM sponsored was enough to light a spark in a couple of Blackburn's students. Two students became concerned when they noticed their school cafeteria didn't have any recycle bins. "They were impressed with the way the EM recycles its materials in its building," Blackburn added. "Our school participates in recycling cans, but that is all. These two students met with our principal and put together a student petition to get recycle bins in place at the school. Funding would come from the Parent Teacher Association (PTA) or something like that to have recyclables throughout campus."

In doing this, money made from recycling at Valley View Elementary would be put back into the school for activities. Blackburn was impressed with what her students came back with after attending the basewide Earth Day event. "They learned that it takes about a million years for glass to decompose and there were some things that I thought my students wouldn't be interested in, but I was shocked when they expressed their interest in the parts per billion demonstration at the Restoration station. I was like 'wow'!

"All in all, I was overly impressed with the Earth Day event. It really inspired my students to become active and I hope events like this will encourage other schools to participate."

Mojave Environmental Education Consortium (MEEC) tour students were also a part of the festivities. The consortium sponsors student tours to businesses and agencies that promote environmental education.

The fair was open to all who have base access.



WINNING ENTRY

The winning Earth Day craft contest entry by Kenneth Moody of Valley View Elementary School.

RTS

Edwards AFB children plant a tree with 95th ABW commander, Col. Drew Jeter at Earth Day event to celebrate Arbor Day

95th Air Base Wing Commander, Col. Drew Jeter celebrated Arbor Day April 20 by planting a tree just outside of the Edwards Air Force Base (AFB) Exchange parking lot with children from the Edwards Child Development Center (CDC). The 95th Air Base Wing Civil Engineering Directorate provided a Modesto Ash to be planted.

During the tree-planting



ceremony, Col. Jeter took the opportunity to listen to children from the CDC read him a poem called *Our Tree*, written by School-Age Coordinator Gwyn Bown. The poem went as follows:

*"We'd like to plant this tree today so fragile and so small.
As little as this tree may be, it will grow to be strong and tall.
One day this tree will be our shade, protection from the sun.
Under its leaves we shall a read book or sit here just for fun."*

STUDY: To help increase desert tortoise populations

From page 3

toises from the same mother to have a different father and naturally, have a different genetic makeup from that of its siblings. This creates genetic diversity within a single clutch, which may be a critical answer for the recovery of the desert tortoise.

The findings from the first phase of the reproductive behaviors of desert tortoises may lead biologists to concentrate more on the translocation of females as opposed to males during mating seasons, which could give the desert tortoise greater chances for genetic survivability.

The second phase of this study, which involves looking at the genetic combinations of desert tortoises over a larger geographic range, is currently taking place.

The desert tortoise has been a threatened species since 1991 because of large declines in the population. The tortoise has a long journey toward sexual maturity, 15 to 20 years, which makes for a slow reproductive cycle.



OPEN WIDE — A desert tortoise hatchling takes the opportunity to eat.

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Published data and documents relating to the Environmental Restoration Program are available for public review in information repositories at four locations. The current information repositories are located in the cities of Boron, Lancaster and Rosamond, as well as Edwards AFB. They are updated when new documents are released.

If you have any questions about information in the repositories, please contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or through e-mail at 95 ABW/PAE@edwards.af.mil.



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Edwards AFB Library 5 W. Yeager Blvd. Building 2665 Edwards AFB, Calif. (661) 275-2665	Mon-Thurs 9:30 a.m. - 7 p.m. Fri 9:30 a.m. - 6 p.m. Sat & Sun 10:30 a.m. - 6 p.m.
Kern County Public Library Wanda Kirk Branch 3611 Rosamond Blvd. Rosamond, Calif. (661) 256-3236	Tue & Wed Noon - 8 p.m. Thurs-Sat 10 a.m. - 6 p.m.
Los Angeles County Public Library 601 W. Lancaster Blvd. Lancaster, Calif. (661) 948-5029	Mon-Wed 10 a.m. - 8 p.m. Thurs & Fri 10 a.m. - 5 p.m. Sat 11 a.m. - 5 p.m.
Col. Vernon P. Saxon, Jr. Aerospace Museum 26962 Twenty Mule Team Road Boron, Calif. (760) 762-6600	Mon-Sun 10 a.m. - 4 p.m.



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